

Application No. 10/099,597

AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough for six or more characters and double brackets for five or less characters; and 2. added matter is shown by underlining.

1. (Original) A collection of amorphous particles comprising non-rare earth metal/metalloid host composition and a rare earth metal dopant/additive, the collection of particles having an average primary particle diameters less than about 500 nm.
2. (Original) The collection of amorphous particles of claim 1 wherein the primary particles have an average diameter less than about 250 nm.
3. (Original) The collection of amorphous particles of claim 1 wherein the primary particles have an average diameter less than about 100 nm.
4. (Original) The collection of amorphous particles of claim 1 wherein the particles comprise from about 0.01 mole percent to about 10 mole percent rare earth metal dopant/additive composition content relative to the total host composition and dopant/additive composition content.
5. (Original) The collection of amorphous particles of claim 1 wherein the particles comprise from about 0.025 mole percent to about 5 mole percent rare earth metal dopant/additive

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composition content relative to the total host composition and dopant/additive composition content.

6. (Original) The collection of amorphous particles of claim 1 wherein the particles comprise from about 0.1 mole percent to about 3 mole percent rare earth metal composition content relative to the total host composition and dopant/additive composition content.

7. (Original) The collection of amorphous particles of claim 1 wherein the metal/metalloid host composition comprises a host oxide selected from the group consisting of TiO_2 , SiO_2 , GeO_2 , Al_2O_3 , P_2O_5 , B_2O_3 , TeO_2 and combinations thereof, and wherein the particles comprise at least about 40 mole percent of the host oxide relative to the total host composition and dopant/additive composition content.

8. (Original) The collection of particle of claim 1 wherein the host oxide comprises SiO_2 .

9. (Original) The collection of amorphous particles of claim 7 further comprising a non-rare earth metal dopant/additive selected from the group consisting of Ga, Mg, Sr, Ti, Si, Ge, Al, P, B, Te, Bi, Sb, La, Y, Zr, Pb, Li, Na, K, Ba, Zn, W, Ca, and combinations thereof.

10. (Original) The collection of amorphous particles of claim 9 wherein the particles comprise from about 0.05 mole percent to about 5 mole percent non-rare earth metal dopant/additive composition content relative to the total host composition and dopant/additive composition content.

11. (Original) The collection of amorphous particles of claim 1 wherein the rare earth metal dopant/additive is selected from the group consisting of Ho, Eu, Ce, Tb, Dy, Er, Yb, Nd, La, Y, Pr, Tm and combinations thereof.

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12. (Original) The collection of amorphous particles of claim 1 wherein effectively no primary particles have a diameter greater than about 5-times the average diameter of the primary particles.
13. (Original) The collection of amorphous particles of claim 1 wherein effectively no primary particles have a diameter greater than about 3 times the average diameter of the primary particles.
14. (Original) The collection of amorphous particles of claim 1 wherein the primary particles have a distribution of particle diameters wherein at least about 95 percent of the primary particles have a diameter greater than about 45 percent of the average diameter of the primary particles and less than about 200 percent of the average diameter.
15. (Original) The collection of amorphous particles of claim 1 wherein the particles comprise at least five different metal/metalloid elements.
16. (Original) A collection of amorphous particles comprising a metalloid oxide selected from the group consisting of B_2O_3 and TeO_2 , and a metal/metalloid dopant/additive, the collection of particles having an average diameter no more than about 1000 nm, wherein the particles comprise at least about 51 mole percent metalloid oxide content relative to the total metalloid oxide and dopant/additive composition content of the particles.

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17. (Original) The collection of amorphous particles of claim 16 wherein effectively no primary particles have a diameter greater than about 5 times the average diameter.
18. (Original) The collection of amorphous particles of claim 16 wherein the primary particles comprise a distribution of particle diameters wherein at least about 95 percent of the primary particles have a diameter greater than about 45 percent of the average diameter and less than about 200 percent of the average diameter.
19. (Original) A collection of particles comprising a metalloid oxide selected from the group consisting of B_2O_3 and TeO_2 , the collection of particles having an average diameter no more than about 250 nm.
20. (Original) The collection of particles of claim 19 wherein the particles further comprise a metal/metalloid dopant/additive.
21. (Original) The collection of particles of claim 20 wherein the particles comprise at least about 51 mole percent metalloid oxide content relative to the total metalloid oxide and dopant/additive composition content of the particles.
22. (Original) The collection of particles of claim 20 wherein the metal/metalloid dopant/additive comprises a rare earth metal.

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23. (Original) The collection of particles of claim 20 wherein the metal/metalloid dopant/additive comprises a non-rare earth metal.

24. (Original) The collection of particles of claim 19 having an average diameter no more than about 150 nm.

25. (Original) The collection of particles of claim 19 having an average diameter from about 3 nm to about 100 nm.

26. (Original) The collection of particles of claim 19 wherein the metalloid oxide comprises B_2O_3 .

27. (Original) The collection of particles of claim 19 wherein the metalloid oxide comprises TeO_2 .

28. (Original) The collection of particles of claim 19 wherein effectively no primary particles have a diameter greater than about 5 times the average diameter.

29. (Original) The collection of particles of claim 19 wherein the primary particles comprise a distribution of particle diameters wherein at least about 95 percent of the primary particles have a diameter greater than about 45 percent of the average diameter and less than about 200 percent of the average diameter.

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30. (Original) A collection of amorphous particles comprising GeO_2 and a metal/metalloid dopant/additive, the collection of particles having an average diameter no more than about 500 nm.

31. (Original) The collection of amorphous particles of claim 30 wherein the collection of particles comprises at least about 30 weight percent GeO_2 .

32. (Original) The collection of amorphous particles of claim 30 wherein the collection of particles comprises at least about 51 weight percent GeO_2 .

33. (Original) The collection of amorphous particles of claim 30 wherein effectively no primary particles have a diameter greater than about 5 times the average diameter.

34. (Original) The collection of amorphous particles of claim 30 wherein the primary particles comprise a distribution of particle diameters wherein at least about 95 percent of the primary particles have a diameter greater than about 45 percent of the average diameter and less than about 200 percent of the average diameter.

35-128 (Cancelled)

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Please add the following new claims:

129. (New) The collection of amorphous particle of claim 16 wherein the dopant comprises a rare earth metal.

130. (New) The collection of amorphous particles of claim 16 wherein the dopant comprises Ga, Mg, Sr, Ti, Si, Ge, Al, P, B, Te, Bi, Sb, La, Y, Zr, Pb, Li, Na, K, Ba, Zn, W, Ca, or combinations thereof.

131. (New) The collection of amorphous particles of claim 16 wherein the metalloid oxide is B_2O_3 .

132. (New) The collection of amorphous particles of claim 16 wherein the metalloid oxide is TeO_2 .

133. (New) The collection of amorphous particles of claim 16 wherein effectively no primary particles have a diameter greater than about 3 times the average diameter.

134. (New) The collection of amorphous particles of claim 16 having an average diameter of less than about 100 nm.

135. (New) The collection of amorphous particle of claim 30 wherein the dopant comprises a rare earth metal.

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136. (New) The collection of amorphous particles of claim 30 wherein the dopant comprises Ga, Mg, Sr, Ti, Si, Al, P, B, Te, Bi, Sb, La, Y, Zr, Pb, Li, Na, K, Ba, Zn, W, Ca, or combinations thereof.

137. (New) The collection of amorphous particles of claim 30 wherein effectively no primary particles have a diameter greater than about 3 times the average diameter.

138. (New) The collection of amorphous particles of claim 30 having an average diameter of less than about 100 nm.